

REMARKS/ARGUMENTS

Favorable reconsideration of the present application is respectfully requested.

The dependency of Claims 14 and 17 has been corrected.

Claims 1, 5, 6, 14 and 17 have again been rejected under 35 U.S.C. § 103 as being obvious over Rhodes et al in view of Pao et al.

The claims recite a FSW welded sputtering target made of the same “spray formed” metal material. Applicants had previously argued that a uniform composition is important to minimize arcing in a sputtering target and that FSW reduces the divergence of the metallographic characteristics in the joint portion sufficiently for its use in joining spray formed materials of a sputtering target. Applicants had also argued that “spray forming” must be considered to be a limitation in the apparatus claims because spray forming imparts distinctive structural characteristics to the final product (M.P.E.P. §2113), i.e., a more uniform composition as compared with materials prepared by casting or powder molding.

Applicants had also argued that neither Rhodes et al nor Pao et al is directed to a sputtering target formed using FSW. Instead, Pao et al is directed to materials for aircraft bodies (see introduction) and Rhodes et al is directed to joining of materials where mechanical properties must be maintained. Applicants further argued that neither reference uses spray formed sheets.

In reply, the outstanding Office Action stated that Applicants have not submitted “factual evidence” that spray forming provides distinct structural features, and so “spray formed” need not be considered a structural limitation. Applicants are therefore at this time submitting such factual evidence in the form of the declaration of Katsutoshi Takagi, who is currently Senior Engineer in the Material and Process Development Section, Technical Engineering Department, Sputtering Target Division, of Kobelco Research Institute, Inc., the assignee of the present application. According to the Takagi declaration, a micro-analysis of

sputtering targets formed by each of vacuum melting, powder sintering and spray forming reveals that spray forming produces a distinctive fine grained microstructure (see Figs. 4-6 and 10-12 of the Takagi declaration).

Since this fine grained microstructure is not produced by the comparative vacuum melting and powder sintering techniques, it is respectfully submitted that this represents a distinct structural characteristic of spray formed materials that could be distinguished by one skilled in the art. Moreover, since neither Rhodes et al nor Pao et al is directed to a spray formed sputtering target, it is respectfully submitted that the claims recite structure that defines over this prior art.

Applicants therefore believe that the present application is in a condition for allowance and respectfully solicit an early notice of allowability.

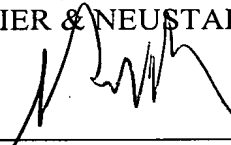
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